

**San Diego County Atlas of Medically Underserved Areas/Populations**  
**Health Professional Shortage Areas, & Registered Nurse Shortage Areas**  
**May, 2013**

## OVERVIEW

### Health Professional Shortage Areas, and Medically Underserved Areas/Populations\*

The U.S. Department of Health and Human Services, Health Resources and Services Administration, Shortage Designation Branch develops criteria to decide whether or not a geographic area, population group or facility is a Health Professional Shortage Area (HPSA) or a Medically Underserved Area (MUA) or Medically Underserved Population (MUP).

HPSAs may be designated as having a shortage of primary medical care, dental or mental health providers. They may be urban or rural areas, population groups or medical or other public facilities.

As of January 9, 2013

- **There are currently approximately 5,900 designated Primary Care HPSAs.** Primary Care HPSAs are based on a physician to population ratio of 1:3,500. In other words, when there are 3,500 or more people per primary care physician, an area is eligible to be designated as a primary care HPSA. Applying this formula, it would take approximately 7,550 additional primary care physicians to eliminate the current primary care HPSA designations. While the 1:3,500 ratio has been a long standing ratio used to identify high need areas, it is important to note that there is no generally accepted ratio of physician to population ratio. Furthermore, primary care needs of an individual community will vary by a number of factors such as the age of the community's population. Additionally, the formula used to designate primary care HPSAs does not take into account the availability of additional primary care services provided by Nurse Practitioners and Physician Assistants in an area. Other sources describing primary care supply use other ratios; for example, a ratio of 1 physician to 2,000 population. To meet this ratio, approximately 16,000 more primary care physicians would need to be added to the current supply in HPSAs.
- **There are currently approximately 4,600 Dental HPSAs.** Dental HPSAs are based on a dentist to population ratio of 1:5,000. In other words, when there are 5,000 or more people per dentist, an area is eligible to be designated as a dental HPSA. Applying this formula, it would take approximately 6,600 additional dentists to eliminate the current dental HPSA designations.
- **There are currently approximately 3,800 Mental Health HPSAs.** Mental Health HPSAs are based on a psychiatrist to population ratio of 1:30,000. In other words, when there are 30,000 or more people per psychiatrist, an area is eligible to be designated as a mental health HPSA. Applying this formula, it would take approximately 2,200 additional psychiatrists to eliminate the current dental HPSA designations

**Medically Underserved Areas (MUA)** may be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services. *As of May, 2013, San Diego County has 115 MUAs.*

**Medically Underserved Populations (MUP)** may include groups of persons who face economic, cultural or linguistic barriers to health care. *As of May, 2013, San Diego County has no designated MUP.*

\*Information from U.S. Department of Health and Human Services, Health Resources and Services Administration Branch, <http://www.hrsa.gov/shortage/>, accessed May, 2013.

### **Registered Nurse Shortage Areas\*\***

The California Healthcare Workforce Policy Commission defines Registered Nurse Shortage Areas (RNSA) as those areas (1) lacking any hospital AND long-term care facility, where the majority of nurses are employed, and (2) having above the mean ratio of nurses to population.

There is a shortage of nurses statewide. The number of nurses per 100,000 in the state is significantly below the national number of nurses per 100,000 population. Those regions with above average census to nurse populations are hit the hardest by this statewide shortage.

This designation uses three factors in defining nursing shortage.

1. County boundaries (as the geographic unit for analysis),
2. The Board of Registered Nursing (BRN) licensee data and
3. The patient day or census data from all long term care facilities and general acute care hospitals.

This RNSA designates 31,311,830 people (84% of the 37,444,385) based on 2006 provisional Department of Finance population estimates. Twenty-seven counties, including San Diego County, are listed as RNSA.

\*\* Information on RNSA from Office of Statewide Health Planning and Development (OSHDP)

<http://www.oshpd.ca.gov/>

---

**Additional maps and information about MSSA, HPSA, RNSA and other healthcare workforce topics pertinent to San Diego County can be found at Office of Statewide Health Planning and Development (OSHDP)**  
<http://www.oshpd.ca.gov/>.

## **Guide to Maps**

**Map 1:** Medically Underserved Areas (MUA) in San Diego County

**Map 2:** Primary Care Health Professional Shortage Areas (Primary Care HPSA) in San Diego County

**Map 3:** Dental Health Professional Shortage Areas (Dental HPSA) in San Diego County

**Map 4:** Mental Health Professional Shortage Areas (Mental HPSA) in San Diego County

**Map 5:** Registered Nurse Shortage Areas (RNSA) in San Diego County

**Map 6:** Medical Service Study Areas (MSSA) in San Diego County

## **Map 1: Medically Underserved Areas (MUA) in San Diego County**

### **Medically Underserved Areas (MUA)\***

Medically Underserved Areas or Medically Underserved Populations (MUA/MUP) are based on the evaluation of criteria established through federal regulation to identify geographic areas or population groups based on demographic data.

**MUA** may be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services. *As of January 9, 2013, San Diego County has 115 MUA, and no designated MUP in San Diego County.*

### **Criteria:**

To qualify for designation, the area or population is scored on the basis of four criteria. For both MUA and MUP designation, an area with a total weighted value of 62 or less is considered eligible:

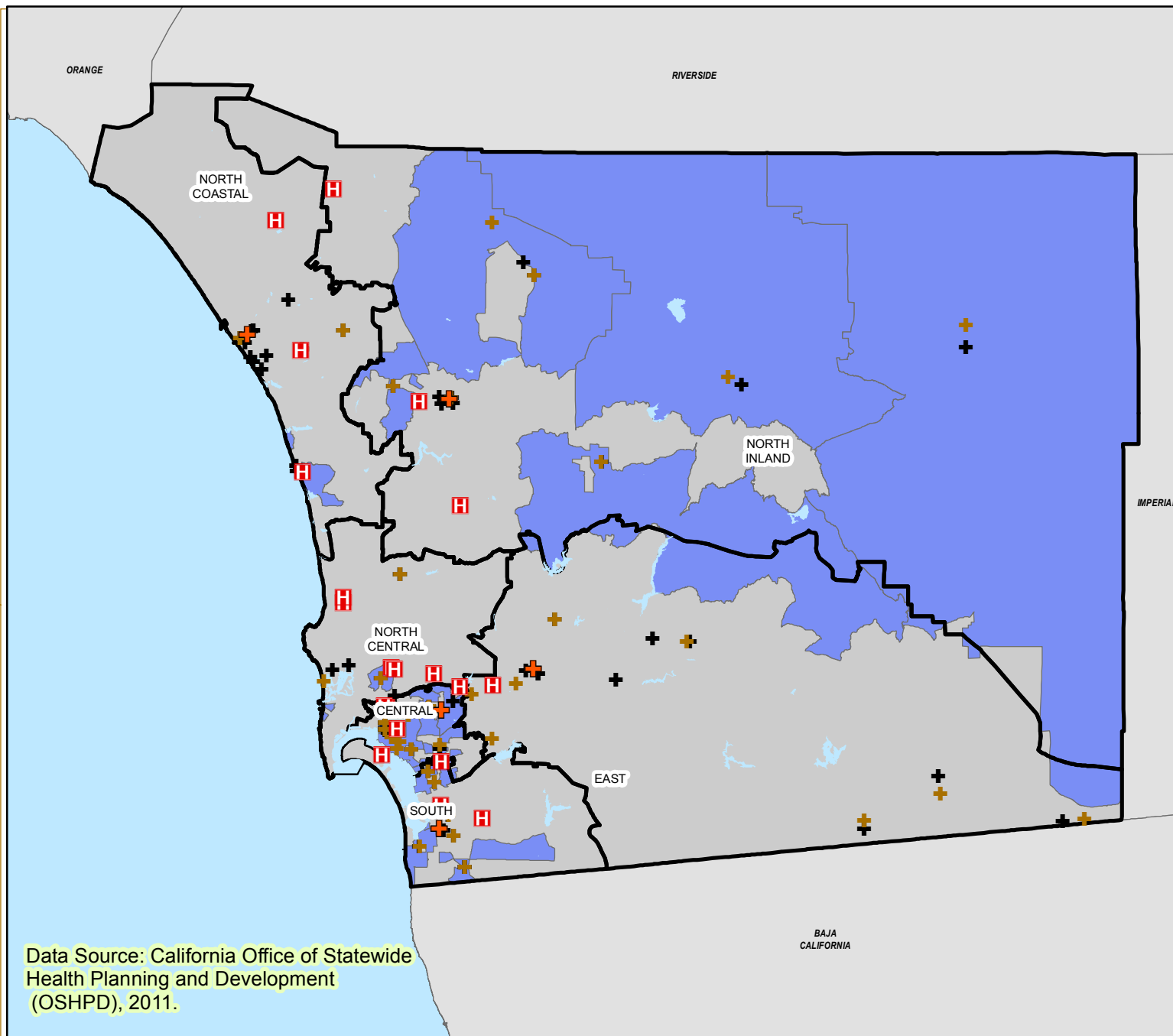
MUA designation requests,

1. Percentage of population at 100% below poverty;
2. Percentage of population over > 65;
3. Infant mortality rate; and
4. Primary care physicians per 1,000 population

### **Benefits of a MUA/MUP designation:**

- Eligibility to develop Community Health Centers, Migrant Health Centers, Federally Qualified Health Centers (FQHCs) and FQHC Look-Alikes, and, Rural Health Clinic (RHC) Certification for MUAs only. The cost-based reimbursement of these programs is designed to enhance access to primary health care in medically underserved areas.
- [Enhanced federal grant eligibility](#);
- Medicare cap is higher.

\* Information from Office of Statewide Health Planning and Development (OSHPD), [http://www.oshpd.ca.gov/HWDD/MUA\\_MUP.html](http://www.oshpd.ca.gov/HWDD/MUA_MUP.html), accessed May, 2013.



Data Source: California Office of Statewide Health Planning and Development (OSHPD), 2011.

Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429  
 NAD 1983, StatePlane California VI FIPS 0406 Feet

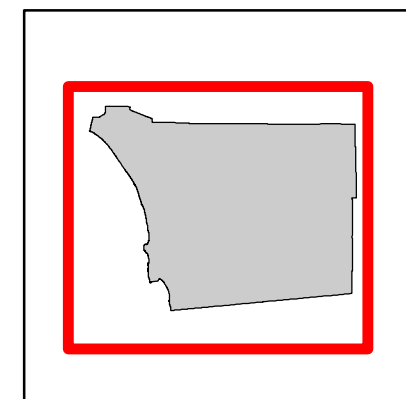


## Medically Underserved Areas/ Populations (MUA/MUP)

Medically Underserved Areas (MUAs) may be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services.

Medically Underserved Populations (MUPs) may include groups of persons who face economic, cultural or linguistic barriers to health care. There are no designated MUPs in San Diego County.

- Medically Underserved Area
- HHS Region
- H Hospital
- + Public Health Center
- + CMS Clinic
- + Community Clinic



**Map 2:** Primary Care Health Professional Shortage Areas (Primary Care HPSA) in San Diego County, 2010.

### **Primary Care Health Professional Shortage Area (Primary Care HPSA) Overview**

#### **Geographic Areas must:**

- Be a rational area for the delivery of primary medical care services
- Meet one of the following conditions:
  - Have a population to full-time-equivalent primary care physician ratio of at least 3,500:1
  - Have a population to full-time equivalent primary care physician ratio of less than 3,500:1 but greater than 3,000:1 and have unusually high needs for primary care services or insufficient capacity of existing primary care providers
- Demonstrate that primary medical professionals in contiguous areas are overutilized, excessively distant, or inaccessible to the population under consideration.

#### **Population Groups must:**

- Reside in an area in that is rational for the delivery of primary medical care services as defined in the Federal code of regulations.
- Have access barriers that prevent the population group from use of the area's primary medical care providers.
- Have a ratio of persons in the population group to number of primary care physicians practicing in the area and serving the population group ratio of at least 3,000:1
- Members of Federally recognized Native American tribes are automatically designated. Other groups may be designated if they meet the basic criteria described above.

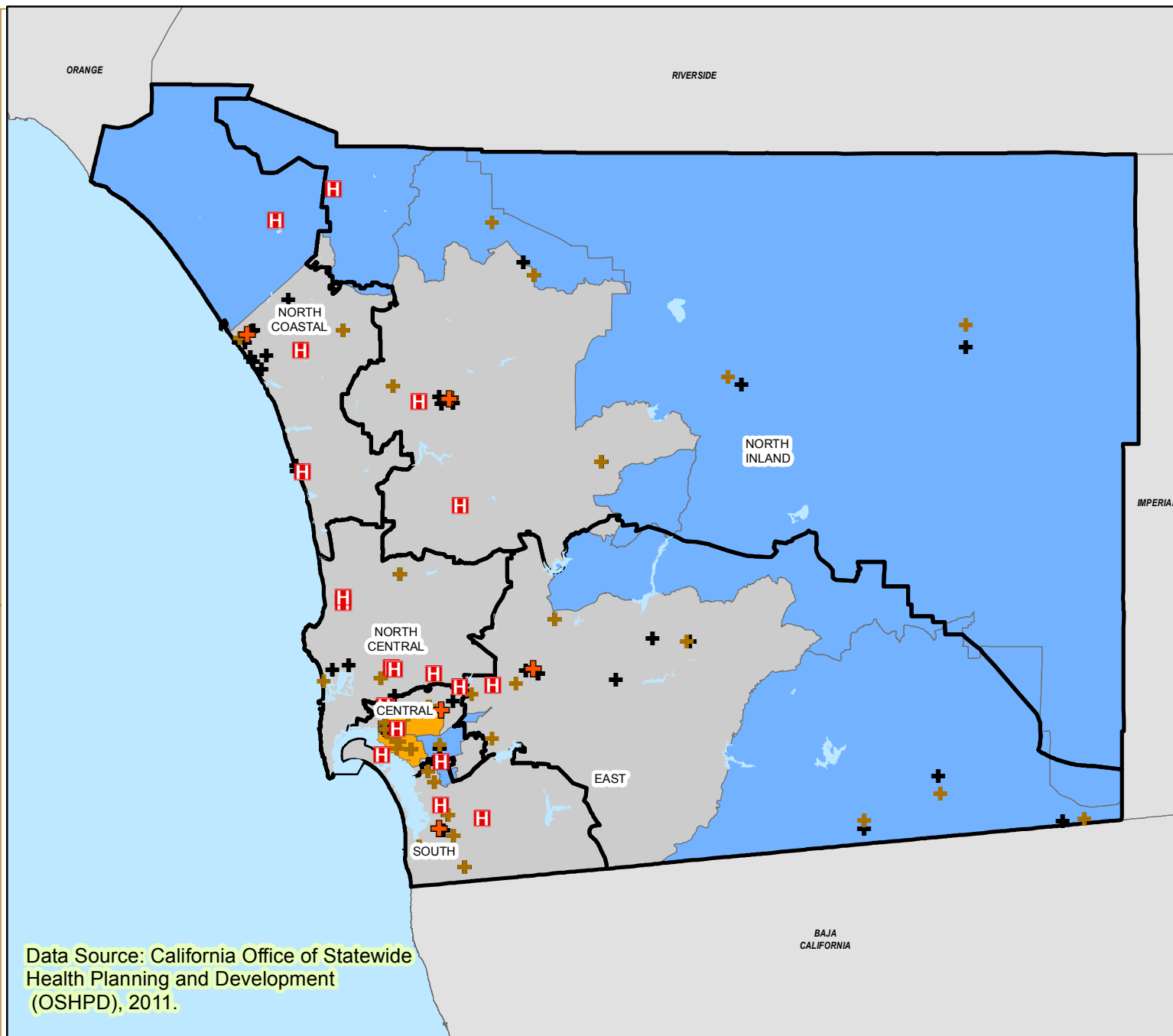
<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/designationcriteria.html>

#### **Benefits of designation as a PCHPSA include:**

- Education loan repayment and personnel placement through the National Health Service Corps (NHSC);
- Improved Medicare reimbursement. Physicians in geographic PCHPSAs are automatically eligible for a 10% increase in Medicare reimbursement;
- Eligibility for Rural Health Clinic Certification (a prospective payment method designed to enhance access to primary health care in rural underserved areas);
- Eligibility for the NHSC/State Loan Repayment Program;
- [Enhanced federal grant eligibility](#); and
- Funding preference for primary care physician, physician assistant, nurse practitioner, and nurse midwife programs that provide substantial training experience in HPSAs.

\* Information from Office of Statewide Health Planning and Development (OSHPD)

[http://www.oshpd.ca.gov/HWDD/Shortage\\_Designation\\_Prog.html](http://www.oshpd.ca.gov/HWDD/Shortage_Designation_Prog.html)



Data Source: California Office of Statewide Health Planning and Development (OSHPD), 2011.

Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429  
 NAD 1983, StatePlane California VI FIPS 0406 Feet

COUNTY OF SAN DIEGO  
**HHSA**  
 HEALTH AND HUMAN SERVICES AGENCY

**SanGIS**

**SANDAG**

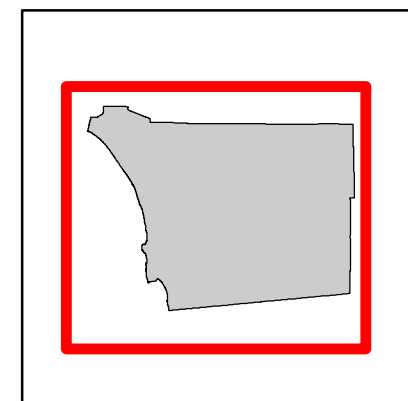
## Health Professional Shortage Areas in San Diego County, CA

### Health Professional Shortage Area

The federal HPSA designation is given to areas that demonstrate a shortage of healthcare providers. This designation is based on the MSSA boundary, its population to (selected type of) practitioner ratio, and available access to healthcare.

### Primary Care Shortage Area

- HPSA Geographic Designation
- HPSA Population Designation
- HHSA Region
- H Hospital
- + Public Health Center
- + CMS Clinic
- + Community Clinic





### **Map 3: Dental Health Professional Shortage Areas (Dental HPSA) in San Diego County**

#### **Dental Health Professional Shortage Area (Dental HPSA)\***

##### **Geographic Areas must:**

- Be rational areas for the delivery of dental services
- Meet one of the following conditions
  - Have a population to full-time-equivalent dentist ratio of at least 5,000:1
  - Have a population to full-time equivalent dentist ratio of less than 5,000:1 but greater than 4,000:1 and unusually high needs for dental services
- Dental professionals in contiguous areas are overutilized, excessively distant or inaccessible to the population

##### **Population Groups must:**

- Reside in a rational service area for the delivery of dental care services
- Have access barriers that prevent the population group from use of the area's dental providers
- Have a ratio of the number of persons in the population group to the number of dentists practicing in the area and serving the population group of at least 4,000:
- Members of Federally recognized Native American tribes are automatically designated. Other groups may be designated if they meet the basic criteria described above.

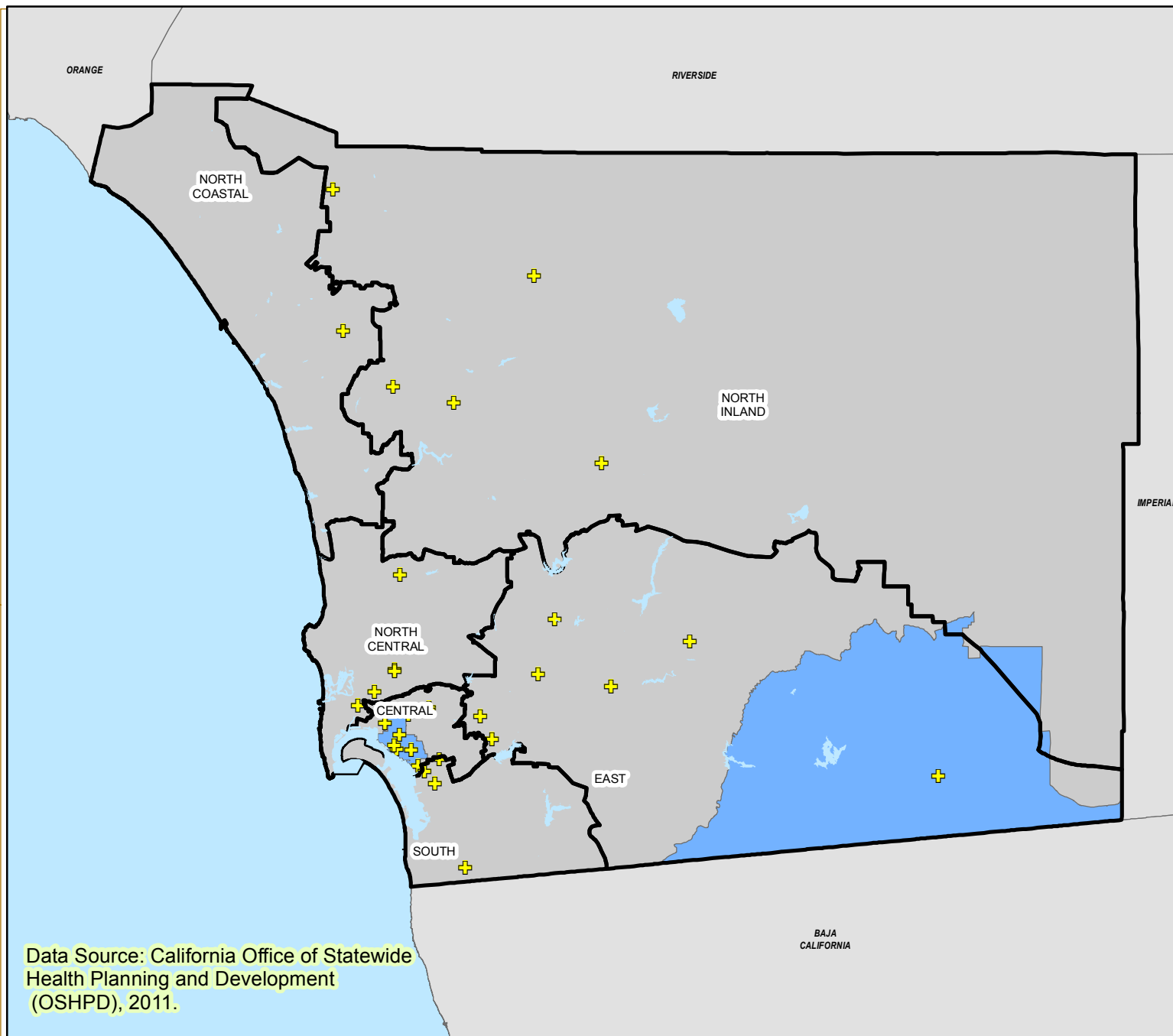
<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/designationcriteria.html>

##### **Benefits of designation as a DHPSA include:**

- Education loan repayment and personnel placement through the National Health Service Corps (NHSC);
- Eligibility for the NHSC/State Loan Repayment Program;
- Scholarships for dental training in return for service in a shortage area; and
- Funding priorities for training in general practice dentistry in programs that provide substantial training in shortage areas.

\* Information from Office of Statewide Health Planning and Development (OSHPD)

[http://www.oshpd.ca.gov/HWDD/Shortage\\_Designation\\_Prog.html](http://www.oshpd.ca.gov/HWDD/Shortage_Designation_Prog.html)



Data Source: California Office of Statewide Health Planning and Development (OSHPD), 2011.

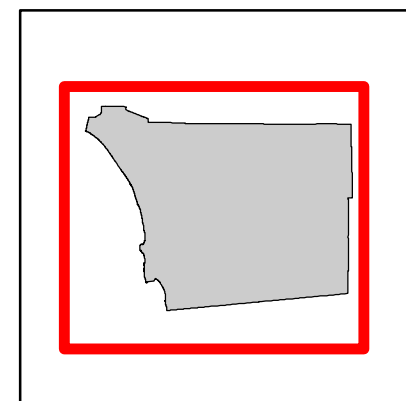
## Health Professional Shortage Areas in San Diego County, CA

### Health Professional Shortage Area

The federal HPSA designation is given to areas that demonstrate a shortage of healthcare providers. This designation is based on the MSSA boundary, its population to (selected type of) practitioner ratio, and available access to healthcare.

### Dental Health Shortage Area

- HPSA Geographic Designation
- HPSA Region
- Low-income Dental Clinic



Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429

NAD 1983, StatePlane California VI FIPS 0406 Feet

COUNTY OF SAN DIEGO  
**HHSA**  
 HEALTH AND HUMAN SERVICES AGENCY

**SanGIS**  
 San Diego Geographic Information System

**SANDAG**

**Map 4: Mental Health Professional Shortage Areas (Mental HPSA) in San Diego County, 2010.**

**Mental Health Professional Shortage Area (Mental HPSA)\***

The federal HPSA designation (formerly Health Manpower Shortage Areas) identifies areas as having a shortage of mental health providers on the basis of availability of psychiatrist and mental health professionals.

**Geographic Areas must:**

- Be a rational area for the delivery of mental health services
- Meet one of the following conditions:
  - A population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1 or
  - A population-to-core professional ratio greater than or equal to 9,000:1 or
  - A population-to-psychiatrist ratio greater than or equal to 30,000:1
- Have unusually high needs for mental health services, and
  - A population-to-core-mental-health-professional ratio greater than or equal to 4,500:1 and a population-to-psychiatrist ratio greater than or equal to 15,000:1, or
  - A population-to-core-professional ratio greater than or equal to 6,000:1, or
  - A population-to-psychiatrist ratio greater than or equal to 20,000:1
- Mental health professionals in contiguous areas are overutilized, excessively distant or inaccessible to residents of the area under consideration.

**Population Groups must:**

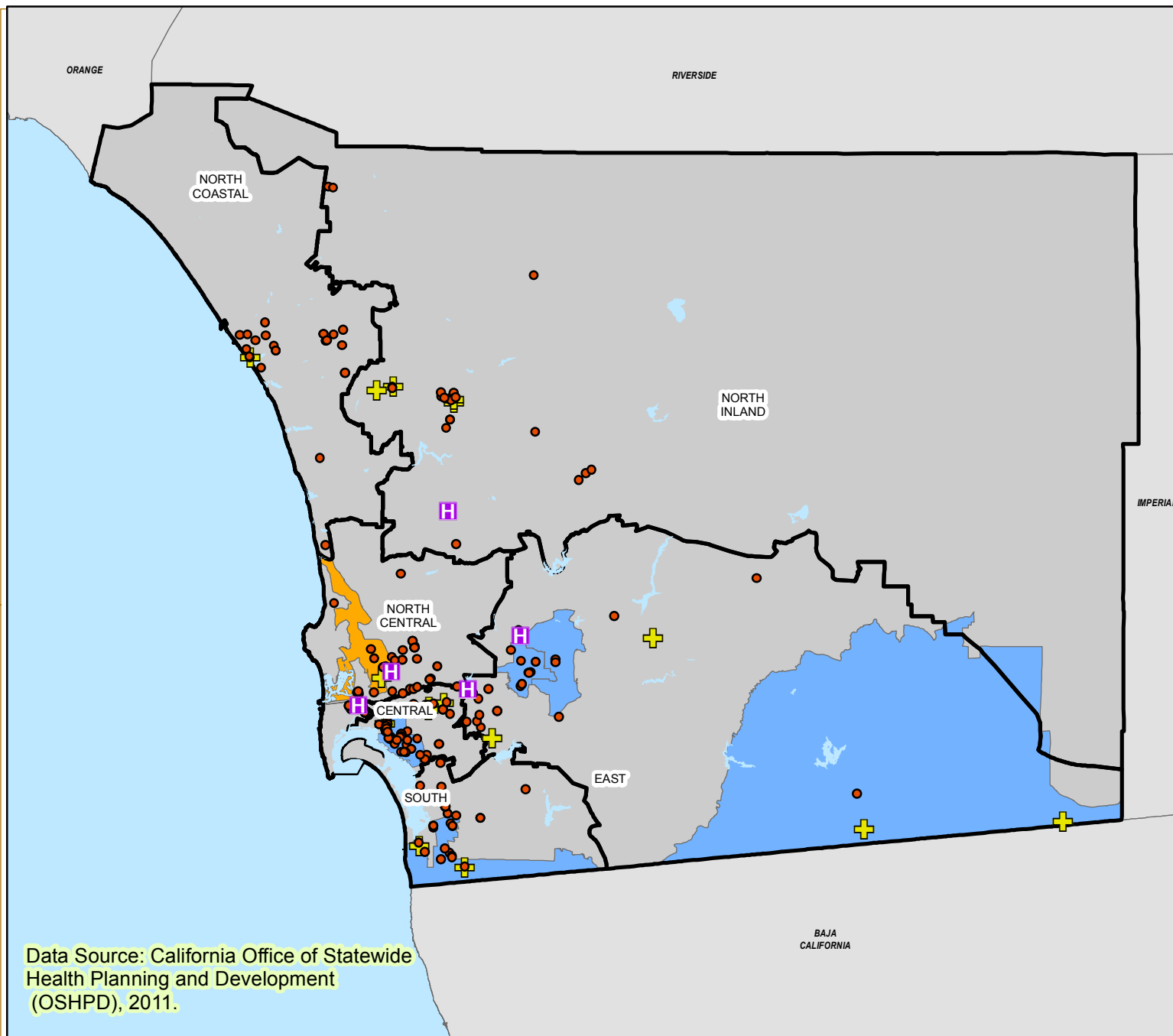
- Face access barriers that prevent the population group from use of the area's mental health providers
- Meet one of the following criteria:
  - Have a ratio of the number of persons in the population group to the number of FTE core mental health professionals serving the population group greater than or equal to 4,500:1 and the ratio of the number of persons in the population group to the number of FTE psychiatrists serving the population group greater than or equal to 15,000:1; or
  - Have a ratio of the number of persons in the population group to the number of FTE core mental health professionals serving the population group greater than or equal to 6,000:1; or
  - Have a ratio of the number of persons in the population group to the number of FTE psychiatrists serving the population group are greater than or equal to 20,000:1

<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/designationcriteria.html>

**Benefits of designation as a MHPSA include:**

- Eligibility for the [National Health Services Corp/State Loan Repayment Program](#);
- Improved Medicare reimbursement; and
- [Enhanced federal grant eligibility](#).

\* Information from Office of Statewide Health Planning and Development (OSHPD)  
[http://www.oshpd.ca.gov/HWDD/Shortage\\_Designation\\_Prog.html](http://www.oshpd.ca.gov/HWDD/Shortage_Designation_Prog.html)



Data Source: California Office of Statewide Health Planning and Development (OSHPD), 2011.

Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429  
 NAD 1983, StatePlane California VI FIPS 0406 Feet



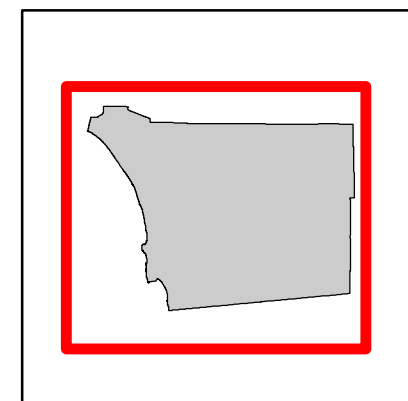
## Health Professional Shortage Areas in San Diego County, CA

### Health Professional Shortage Area

The federal HPSA designation is given to areas that demonstrate a shortage of healthcare providers. This designation is based on the MSSA boundary, its population to (selected type of) practitioner ratio, and available access to healthcare.

### Mental Health Shortage Area

- HPSA Geographic Designation
- HPSA Population Designation
- HHSA Region
- H Acute Psychiatric Hospital
- Behavioral Health Program
- + Mental Health Clinic



**Map 5:** Registered Nurse Shortage Areas (RNSA) in San Diego County, 2010.

**Registered Nursing Shortage Areas (RNSA)\***

The majority of nurses are employed at hospitals and long term care facilities. RNSAs are those areas (1) lacking any hospital AND long-term care facility and (2) above the mean nurse to population ratio, where the mean is the average of all counties in California

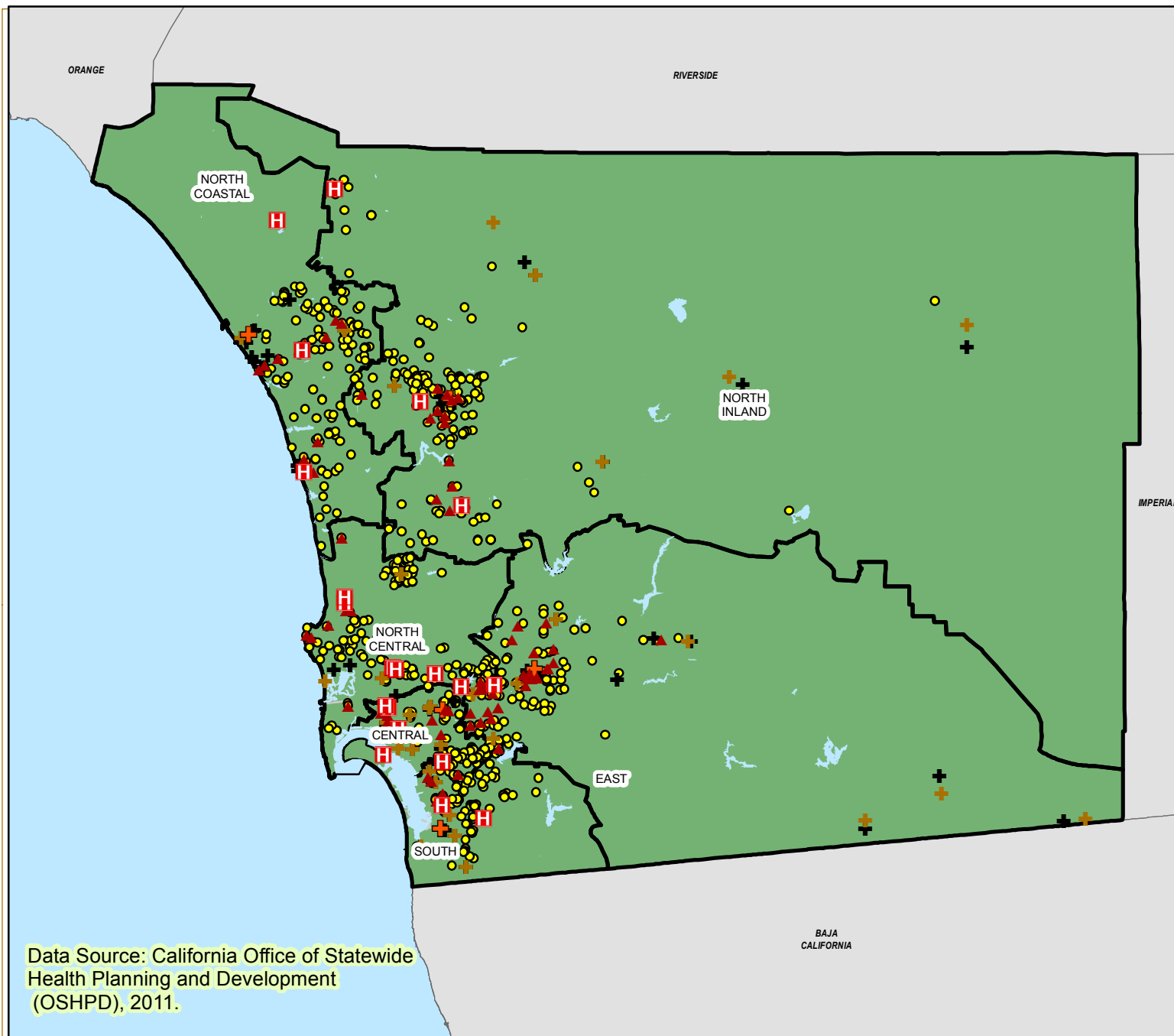
This designation uses three factors in defining nursing shortage.

- (1) California counties (as the geographic unit of analysis)
- (2) California registered nurse data of all active licenses by county
- (3) The patient day and census data from all long-term care and general acute care facilities from OSHPD.

San Diego County is a Registered Nurse Shortage Area.

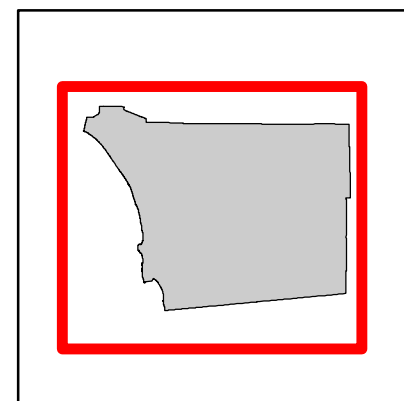
Three factors are used in defining nursing shortages: (1) California counties (as the geographic unit of analysis), (2) California registered nurse data of all active licenses by RNSA April 16, 2012 Page 2 , and (3) the patient day and census data from all LTCs and GACs from OSHPD.

\* Information on RNSA designation and analysis available from Office of Statewide Health Planning and Development (OSHPD) [http://www.oshpd.ca.gov/General\\_Info/MSSA/RNSA\\_Report.pdf](http://www.oshpd.ca.gov/General_Info/MSSA/RNSA_Report.pdf), accessed May, 2013.



## Registered Nurse Shortage Areas in San Diego County, CA

- H Hospital
- ▲ Skilled Nursing Facility
- + Public Health Center
- + CMS Clinic
- + Community Clinic
- Residential Care - Elderly
- HHSA Region
- Registered Nurse Shortage Area



Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429

NAD 1983, StatePlane California VI FIPS 0406 Feet

COUNTY OF SAN DIEGO  
**HHSA**  
 HEALTH AND HUMAN SERVICES AGENCY

**SanGIS**  
 901 More San Diego County  
 941.424.2222  
 www.sandagis.com

**SANDAG**

## **Map 6: Medical Service Study Areas (MSSA) in San Diego County**

### **Medical Service Study Areas (MSSA)\***

Medical Service Study Areas (MSSAs) are sub-city and sub-county geographical units used to organize and display population, demographic and physician data. MSSAs were developed in 1976 by the California Healthcare Workforce Policy Commission (formerly California Health Manpower Policy Commission) to respond to legislative mandates requiring it to determine "areas of unmet priority need for primary care family physicians" (Song-Brown Act of 1973) and "geographical rural areas where unmet priority need for medical services exist" (Garamendi Rural Health Services Act of 1976).

MSSAs are recognized by the U.S. Health Resources and Services Administration, Bureau of Health Professions' Office of Shortage Designation as rational service areas for purposes of designating Health Professional Shortage Areas (HPSAs), and Medically Underserved Areas and Medically Underserved Populations (MUAs/MUPs).

The MSSAs incorporate the U.S. Census total population, socioeconomic and demographic data and are updated with each decadal census. Office of Statewide Health Planning and Development provides updated data for each County's MSSAs to the County and Communities, and will schedule meetings for areas of significant population change. Community meetings will be scheduled throughout the State as needed.

Adopted by the California Healthcare Workforce Policy Commission on May 15, 2002.

Each MSSA is composed of one or more complete census tracts. MSSAs will not cross county lines. All population centers within the MSSA are within 30 minutes travel time to the largest population center.

**Urban MSSA** - Population range 75,000 to 125,000. Reflect recognized community and neighborhood boundaries. Similar demographic and socio-economic characteristics.

**Rural MSSA** - Population density of less than 250 persons per square mile. No population center exceeds 50,000.

**Frontier MSSA** - Population density of less than 11 persons per square mile.

\* Information from Office of Statewide Health Planning and Development (OSHDP)  
<http://www.oshpd.ca.gov/hwdd/MSSA/index.html>

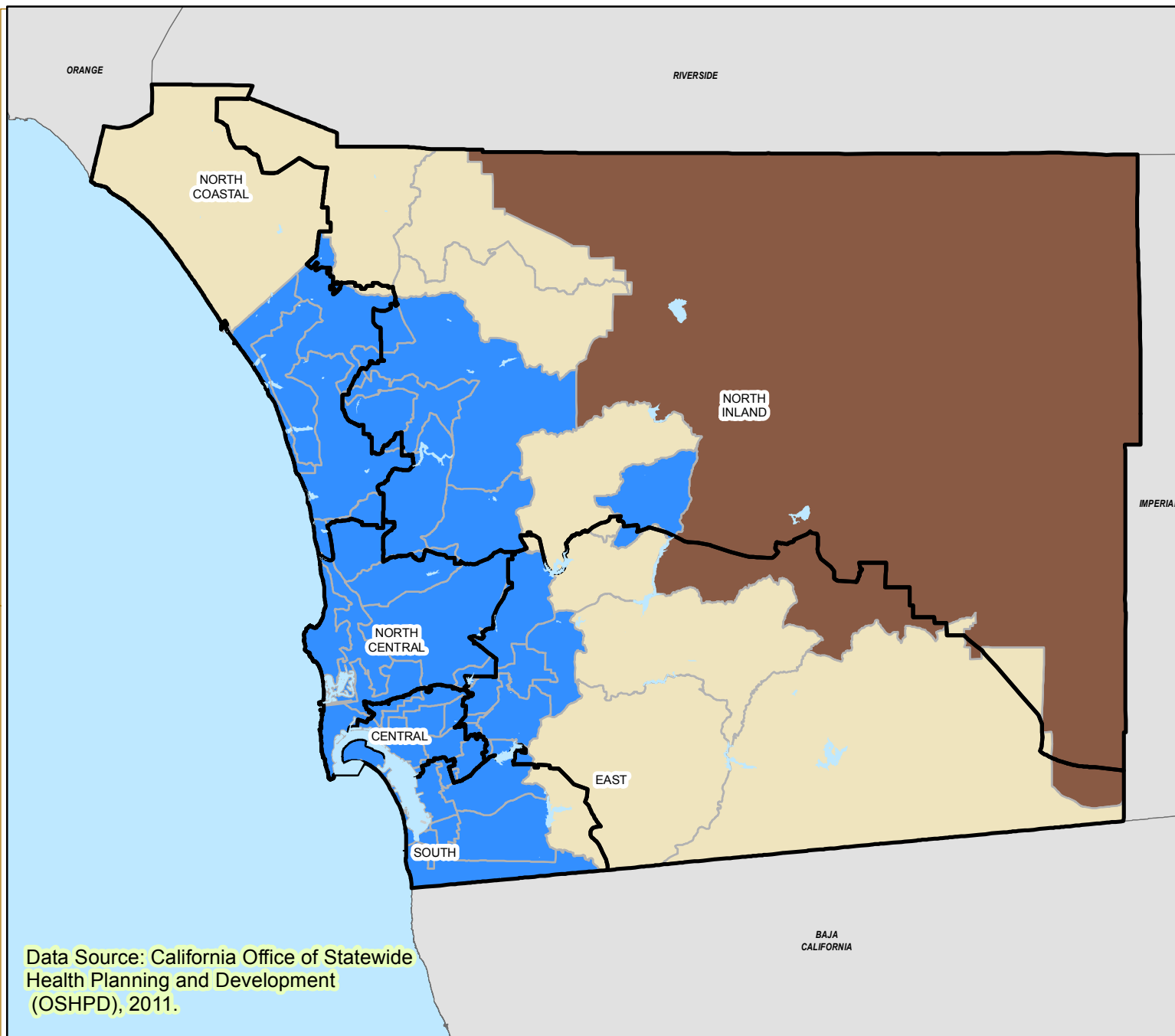


## Medical Service Study Areas in San Diego County, CA

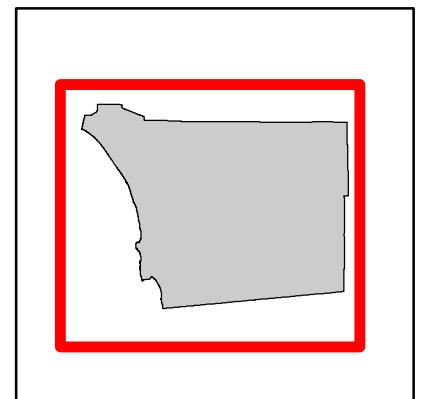
Medical Service Study Areas (MSSA) are the defined geographic analysis unit for the Office of Statewide Health Planning and Development. MSSAs are a principal component for display of large data bases through OSHPD's and State of California's Geographic Information Systems. MSSAs have the potential for assisting in needs assessment, health planning, and health policy development.

### MSSA Classification

- Frontier
- Rural
- Urban
- HHS Region



Data Source: California Office of Statewide Health Planning and Development (OSHPD), 2011.



Map Date: 2013  
 Contact: Isabel Corcos or Leslie Ray  
 County of San Diego, HHSA, Emergency Medical Services  
 619.285.6429

NAD 1983, StatePlane California VI FIPS 0406 Feet

COUNTY OF SAN DIEGO  
**HHSA**  
 HEALTH AND HUMAN SERVICES AGENCY

**SanGIS**  
 901 More San Diego County  
 94100 San Diego, CA 92161-9410  
 (619) 491-6000  
 www.sandag.org

**SANDAG**